

Appl. No. 10/680,492
Amendment dated June 13, 2007
Reply to Office Action of March 13, 2007

IN THE SPECIFICATION:

Please amend the specification as follows:

Please delete paragraph [008], and replace it with the following.

[008] Furthermore, depending on the properties of each object 130, 135, the strongest signal received at the second antenna 125 may be a reflected signal 150, 155 rather than the direct signal 140. One reason for this is that there could be something collecting energy at one of the objects 130, 135 and focusing it towards the receiving antennae 125. Another reason that a reflected signal may stronger than a direct signal is that there could be multiple objects that cause reflections having the same reflected path length. For example, if path 150 has a length L_1 , path 155 has a length L_2 , and $L_1 = L_2$, the path lengths will be exactly matched. As a result of this, one wavelet will travel from the first antennae antenna 115 along path 150 to the second antenna 125, and another wavelet will travel from the first antenna 115 along path 155 to the second antenna. But since the path lengths are the same, both wavelets will arrive at the second antenna 125 at the same time and they would add their strengths together. Therefore it's not necessary that the shortest path signal be the strongest one received at the receiver.

Please delete paragraph [024], and replace it with the following.

[024] An alternate raking receiver in a wireless network is also provided. ~~This~~ This raking receiver comprises: an antenna for receiving an incoming signal; A wavelet forming circuit for producing first through Nth weighted main wavelets and first through Nth weighted error wavelets; A main path summer for adding together the first through Nth weighted main wavelets to produce a main correlation input signal; an error path summer for adding together the first through Nth weighted error wavelets to produce an error correlation input signal; a main path

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mixer for multiplying the incoming signal with the main correlation input signal to produce a main correlated signal; an error path mixer for multiplying the incoming signal with the error correlation input signal to produce an error correlated signal; a main path signal processing circuit for receiving the main correlated signal and producing a digital bit value; an error path signal processing circuit for receiving the error correlating circuit and producing a digital error-tracking signal, wherein N is an integer greater than 1.

Please delete paragraph [0117], and replace it with the following.

[0117] This correlated signal will then be amplified at the main amplifier chain 960 and then integrated at the main IHD integrator 970. As noted above with respect to ~~Fig. 4~~ Fig. 4A, the main IHD integrator 970 preferably has three integrators so that one can integrate ~~th~~ the current main signal, one can hold the most recent integration to allow it to be output, and one can be dumping (or resetting) the second most recent input value. The main IHD integrator 970 preferably has a switch that goes between the three integrators, cycling through the pattern of integrate, output, and dump for each. In an alternate embodiment is to replace the integrators with a low-pass filter.